MODIS TECHNICAL TEAM MEETING

November 6, 1995

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Dorothy Hall, Bob Murphy, Chris Justice, Steve Ungar, Dick Weber, John Barker, Bill Barnes, Barbara Putney, Barbara Conboy, David Herring, Steve Wharton, Bruce Guenther, Harry Montgomery, Yoram Kaufman, and Wayne Esaias.

1.0 SCHEDULE OF EVENTS

Oct. 16	**Quarterly Reports Due (Period--July-September)**
Nov. 8 - 9	Workshop on Subsetting Data
Nov. 15 - 17	MODIS Science Team Meeting at GSFC, Building 8 Auditorium

2.0 MINUTES OF THE MEETING

2.1 SDST Reports

Putney reported that the MODIS Quarterly Software Management Review was held last week and it went well. She said there is some concern as to which part of the Ocean Discipline Group's software belongs to MODIS and which belongs to SeaWiFS. Putney reported that all software, with the exception of some Ocean Group Products, are in.

Putney reported that early results of SDST's benchmark tests on a subset of the products, all except for Level 1B exceeds the estimated size and processing requirements.

2.2 MCST Reports

Guenther announced that he and various other MCST personnel are leaving tomorrow to begin the first of three field audits. Tuesday Guenther's team is traveling to the University of Wisconsin-Madison to discuss calibration modules and emissive infrared concerns. Wednesday and Thursday the groups will discuss algorithms and MCST will present a synopsis of the Critical Design Review (CDR) of the version 1 software.

Guenther reminded the Team that SBRC is required to provide information for the radiance of all 36 bands, which is necessary for producing the radiance product. He stated that, for reflected solar bands, if MCST knew it could make software corrections for transient response problems, and if MCST knew it could make these corrections in reflectance space as well as radiance space, then MCST would like to make the reflected solar product only reflectance. However,

because they don't know if they can correct for transient response, MCST is currently planning to produce both a reflectance and a radiance product.

Kaufman agreed that a reflectance solar product is better for science. Putney asked if producing both reflectance and radiance products will double the volume of MCST's top of atmosphere solar product. Guenther responded yes it will about double the size of the product. If MCST is to make corrections, and the corrections can be made in reflectance space, then the size of the product will decrease.

Guenther noted that the Version 1 Specification will be frozen at the Critical Design Review in December. The Specification will state MCST's intent to produce both radiance and reflectance solar products. Barker added that by next week he expects to receive from SBRC short wave infrared spectral characteristics data so that MCST can discuss what does and does not meet specifications.

Regarding the specifications, Kaufman proffered that the MODIS Team needs a management approach to ensuring that the proper personnel get essential information in a timely manner in order to be able to respond as needed. Salomonson asked Herring to flag any such action items and or deadlines for responses clearly in the Technical Team Minutes.

2.3 MODIS Project Reports

Weber reported that MODIS Project personnel went recently with MCST and SBRC personnel to tour the new large integrating facility at Valley Forge. The facility has a new high bay clean room, an acoustic chamber and a vacuum chamber. Weber noted, however, that the Valley Forge facility currently suffers from an erosion, or rapid turnover, of personnel. He told the Team this turnover results from the plan to close the facility after the completion of EOS-AM.

2.3.1 SBRC Name Change

Weber announced that SBRC is changing its name in December 1995 to Santa Barbara Remote Sensing (SBRS). [Note: Beginning in December, Technical and Science Team Minutes will refer to SBRC as SBRS.]

2.3.2 MODARCH Security Issue

Weber stated that, for now, the MODARCH security issue has been resolved. Herring is writing a memo--which will be signed by Chris Scolese, EOS Project Manager--that will state which MODIS documents may be placed in the public domain on MODARCH. Those documents not listed in the memo will reside in a password-protected partition on MODARCH. In short, there will be two levels of access to MODARCH--1) open and unrestricted documents in the public domain, and 2) restricted access to certain SBRC technical documents pertaining to the design of MODIS.

Access to the restricted partition will be given to MODIS Team Members who are United States citizens or U.S. Green Card holders. Anyone else wishing to gain access must make a request in writing. These requests will be considered on a case-by-case basis.

Recently, there was some question as to whether it is legal to make internationally accessible certain technical data about the design of the MODIS instrument. For now, the decision was made by the EOS Project Manager to restrict access to certain SBRC CDRL (Contract Deliverable Requirements List) documents.

2.3.3 Vibration Tests

Weber reported that there was a failure in a vibration test conducted recently on the Protoflight Model (PFM) Fold Mirror. A bond came loose from structure support during the vibration test. Weber stated that the failure was not catastrophic and that SBRC has re-engineered the bond so that the failure should not happen again.

During vibration tests of the MODIS Engineering Model (EM), one of the near infrared lens elements came loose. SBRC is going back and adding more epoxy to the lenses on the PFM to make sure that they are more secure. The result looks like a 2- to 4-week slip in the schedule.

2.3.4 High Noise Levels

Weber told the Team that during tests SBRC also found high infrared background levels in both PFM and EM. He said that there is a blanket on a portion of the Earth face of MODIS that SBRC plans to remove. This will cool optics 6 to 8 degrees, which SBRC believes will solve the high infrared level problem.

2.4 Recompetition for Product Delivery

Regarding the product recompetition, Justice reported that Team members may compete for product generation delivery as long as they fulfill their existing commitments to NASA.

2.5 International Cal/Val Meeting

Esaias announced that CNES and POLDER will host an international calibration/validation meeting in February 1996. The agenda will focus particularly on collecting cal/val Ocean data in the visible region of the spectrum.

2.6 MAST Reports

Herring distributed copies of the NASA CIO (center information officer) Executive Notice 06-95, entitled "Minimum Office Automation Software Suite Interface and Product Standards" (see Attachment 1). The purpose of the notice is to provide guidelines to help NASA center CIOs ensure that all NASA

employees have access to an interoperable workstation that is equipped with a minimum software suite that meets standards for word processing, spreadsheets, presentations, electronic mail, calendar/scheduling, and basic Internet functions (e.g., file transfer protocol and browsing the WWW). Herring reported that, for the most part, the new MODIS Document Development and Distribution Plan (Attachment 2) complies with the CIO notice. Herring will present the MODIS Plan at next week's Science Team Meeting.

Herring presented the latest iteration of the MODIS Science Team Meeting Agenda (Attachment 3).

3.0 ACTION ITEMS

3.1 Action Items Carried Forward

1. *Dave Diner & Robert Wolfe*: MODIS and MISR need to settle on a protocol(s) to deal with Level 1 and Level 2 data sets to be passed between the two teams to produce joint products. Report at the next SWAMP Meeting.

4.0 ATTACHMENTS

NOTE: All attachments referenced below are maintained in MODARCH and are available for distribution upon request. Please contact David Herring, MAST Technical Manager, at (301) 286-9515, Code 920, NASA/Goddard Space Flight Center, Greenbelt, MD 20771 if you desire copies of any attachments.

1. "Minimum Office Automation Software Suite Interface and Product Standards"
2. MODIS Document Development and Distribution Plan, by David Herring
3. MODIS Science Team Meeting Agenda, by David Herring

5.0 RECENT MODIS DOCUMENTS

Note: All recent MODIS documents listed below are maintained in MODARCH FTP facility. They may be accessed in Portable Document Format (PDF) at this URL--ftp://modarch.gsfc.nasa.gov/pub/ SDST. If you have questions about MODARCH, please contact the MODARCH System Administrator, Michael Heney, at (301) 286-4044 or via e-mail at mheney@ltpmail.gsfc.nasa.gov.

1. Beta Software Release Specifications
2. MODIS Data Management Plan
3. MODIS Data Product Volumes/CPU Loads
4. System Software Integration and Testing--GSFC DAAC
5. Software Development Guide
6. Software Management Plan